Remarks

Claims 1-8 and newly added claims 9-12 are currently pending in the patent application. For the reasons and arguments set forth below, Applicant respectfully submits that the claimed invention is allowable over the cited references.

In the non-final Office Action dated October 23, 2007, the following rejections are noted: claims 1-8 stand rejected under 35 U.S.C. § 112(2) and claims 1-8 stand rejected under 35 U.S.C. § 102(b) over the Chang reference ("Performance Analysis and Architecture Evaluation of MPEG-4 Video Codec System, IEEE 2000).

The 35 U.S.C. § 102(b) rejections are improper for failing to disclose each aspect of the claimed invention. Applicant notes that the aspects relied upon by the Office Action are merely part of a virtual machine used to model computational behavior. As such, these components are merely conceptual elements that are implemented in software and that are for the purpose of hypothetical testing and evaluation. For this and other reasons, the Chen reference fails to teach a correspondence to a number of different claim limitations.

For instance, the Chang et al., reference fails to teach 1) a memory managing unit for determining whether there is sufficient LM and 2) a request that a global buffer be reserved in the global memory. Applicant's review of the Chang reference reveals no discussion of a global buffer within the global memory, and more specifically, there is no discussion that there is a request to reserve such a global buffer. It appears that the Office Action may be erroneously asserting that any use of the global memory corresponds to reserving a global buffer. Applicant respectfully submits that mere use of the memory does not constitute reserving thereof. Notwithstanding, Applicant has amended claims 1 and 8 to explicitly state that the request involves providing exclusive access to the associated module.

Applicant also notes that the Chen reference does not appear to teach correspondence to limitations directed to requesting a dedicated communication path between the associated module and the global buffer.

In another example, the Office Action fails to identify any teachings corresponding to limitations directed to determining whether there is sufficient local

memory for the currently processed application. The Office Action cites to the following paragraph and figure when alleging support:

A. Behavior Model

In order to apply the model-based analysis on MPEG-4 video codec, a reference processor model has to be setup.

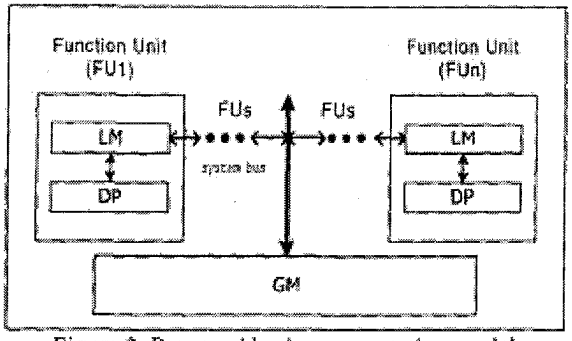

Figure 3. Proposed basic compuatation model

As shown in Figure 3, basically it is a simple computation model composed of several function units, each which comprises a data processor (DP) and a memory module (local memory, LM and global memory, GM). The computational behavior can be modeled as memory access (data transfer between GM and LM) and data processing. Based on this model, we can divide the MPEG-4 video codec into several processing units, each that can deal with one major task of MPEG-4 video coding, such as DCT/IDCT, VLC/VLD, MC, ME...etc. After such a virtual machine has been setup, the computational behavior, i.e., the number of data-path operations, memory access and memory-addressing operations can be calculated by directly analyzing the computing flow of algorithms.

Applicant respectfully submits that this section fails to teach correspondence to determining whether the local memory provides sufficient memory space for the currently processed application. Specifically, Applicant notes that this portion of the Chang reference is generally directed to simple computational modeling using a virtual machine. As the computational model is a virtual machine used to estimate computational costs (*see, e.g.*, Chang at page 451, first full paragraph), Applicant respectfully submits that the model does not represent actual components.

Moreover, the Office Action appears to assert that data processors (DP1 to DPn) are at the same time the plurality of modules and the memory management unit (and no other relevant functional blocks appear to be depicted nor described in the Chang reference). Applicant respectfully submits that there is no discussion of such data processors determining whether a local memory (LM) provides sufficient memory space for a currently processed application. Moreover, while there are no specific teachings in

this regard, it would seem logical that a virtual model would be designed to have a sufficient local memory because it is not directly limited by actual hardware.

For at least the aforementioned reasons, Applicant respectfully submits that the cited reference fails to show correspondence to each claim limitations in at least independent claims 1 and 8. Accordingly, Applicant requests that the rejections to claims 1-8 be withdrawn.

Applicant respectfully submits that correspondence to various components as recited in the dependent claims has not been properly addressed. For instance, it is unclear what is being asserted as corresponding to limitations directed to a resource managing unit and the interactions between the resource managing unit and the memory management unit.

Applicant respectfully submits that the amendments to claims 1 and 8, and new claims 9-11, are fully supported in Appellant's specification. For example, support can be found at paragraphs 10-19. Additional support for more specific embodiments can be found at paragraphs 22-32.

In view of the remarks above, Applicant believes that each of the rejections/objections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063.

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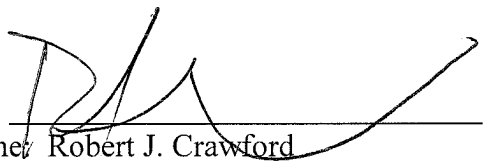
By: 
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